Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims

1. - 16. (Cancelled)

17. (Currently Amended) A method of manufacturing a capillary bonding tool for bonding a fine wire to a ~~substrate~~bonding location, the method comprising the steps of:

providing a body portion of the capillary bonding tool, the body portion defining an orifice configured to receive a wire for bonding to a bonding location, the body portion extending to a tip portion~~forming a cylindrical body;~~

~~forming a taper at a first end of the body;~~

~~forming an orifice extending along a longitudinal axis of the body~~; and

coating at least a portion of a non-polymeric surface of the tip portion ~~the orifice~~ with a polymer, without coating a major portion of an internal surface of the body portion.

18. (Original) The method according to claim 17, wherein the coating step forms a substantially uniform continuous coating having a thickness of up to about 2.0 microns.

19. (Original) The method according to claim 17, wherein the coating step forms a substantially uniform continuous coating having a thickness of at least about 0.1 micron.

20. (Original) The method according to claim 17, wherein the coating step comprises the steps of:

forming a precursor monomer at a first temperature and a first pressure; and

forming the coating from the precursor monomer at a second temperature and pressure.

21. (Original) The method according to claim 20, wherein

the first temperature is about 690°C,

the first pressure is about 0.5 torr,

the second temperature is about 25°C, and

the second pressure is about 0.1 torr.

22. (Original) The method according to claim 20, wherein the precursor monomer is formed from a di-Para-Xylyene dimer vaporized at about 150°C and about 1.0 torr followed by a pyrolesis at about 690°C and about 0.5 torr.

23. (Currently Amended) The method according to claim 17, wherein the capillary bonding tool body portion is formed prior to the coating step by a process including one of i) ~~one of~~ direct ceramic dye pressing and ii) injection molding, and machined to a final shape by one of i) grinding and ii) Electro discharge machining.

24. – 26. (Cancelled).

27. (Currently Amended) A method of manufacturing a capillary bonding tool for bonding a fine wire to a ~~substrate~~bonding location, the method comprising the steps of:

providing a body portion of the capillary bonding tool, the body portion defining an orifice configured to receive a wire for bonding to a bonding location, the body portion extending to a tip portion~~forming an orifice extending along a longitudinal axis of the bonding tool~~;

coating at least a portion of an interior surface of the ~~orifice~~ tip portion with a polymer, without coating a major portion of an internal surface of the body portion, the coated portion of the interior surface being a non-polymeric material; and

coating at least a portion of an exterior surface of the tip portion ~~bonding tool~~ with a non-polymer coating.

28. (New) The method of claim 17 wherein the coating step includes coating an interior surface of the tip portion with the polymer.

29. (New) The method of claim 17 wherein the coating step includes coating an exterior surface of the tip portion with the polymer.

30. (New) The method of claim 17 wherein the coating step includes coating an interior surface and an exterior surface of the tip portion with the polymer.

31. (New) The method of claim 17 wherein the coating step includes coating a face end surface of the tip portion with the polymer, the face end surface being adjacent an end of the orifice through which the wire exits the capillary bonding tool during a wire bonding operation.

32. (New) The method of claim 31 wherein the coating step includes coating the face end surface of the tip portion with a polymer wherein the polymer comprises a material selected from the group consisting of polyolefines, polyparaxylylenes or floropolymers.

33. (New) The method of claim 31 wherein the coating step also includes coating an interior surface of the tip portion with the polymer.

34. (New) The method of claim 17 wherein the coating step includes coating an interior surface of the tip portion with the polymer, and coating an exterior surface of the tip portion with a material having a greater hardness than the polymer.

35. (New) The method of claim 17 wherein the coating step includes coating at least a portion of the non-polymeric surface of the tip portion with a polymer comprising a material selected from the group consisting of polyolefines, polyparaxylylenes or floropolymers.

36. (New) The method of claim 27 further comprising coating a face end surface of the tip portion with the polymer, the face end surface being adjacent an end of the orifice through which the wire exits the capillary bonding tool during a wire bonding operation.

37. (New) The method of claim 27 wherein the non-polymer coating has a greater hardness than the polymer.

38. (New) The method of claim 27 wherein the polymer comprises a material selected from the group consisting of polyolefines, polyparaxylylenes or floropolymers.

39. (New) The method of claim 38 wherein the non-polymer coating comprises a material selected from the group consisting of amorphous alumina and Si_3N_4.